

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004812**Date Inspected:** 24-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Hu Wei Qing and Zhao Chen Sun			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	OBG and SAS Tower Fabrication		

Summary of Items Observed:

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

Bay 1: OBG Sub assembly

QA Inspector J. Lizardo randomly observed ZPMC welding utilizing the dual process WPS-B-T-2342-U1 (U-rib)-4 welding procedure specification for closed rib welding for Production Panel DP284-001-001/002 and 005/006 U-rib Partial Joint Penetration (PJP) welds in Bay #1. ZPMC welding personnel performed gantry mounted machine, Gas Metal Arc Welding (GMAW) for the root pass. ZPMC welders performing the task were ID #062265 and ID #059361 for U-rib 001/002 and ID #059449 and ID #059418 for 005/006. This QA observed ABF/QA and ZPMC/CWI monitoring welding parameters.

No tack welding observed at the time but setting up of 2-3U-rib stiffeners for DP500 and DP311 was on going at gantry table #1.

Bay 2: Plate Cutting, Rolling, Machining

Bevel/machining of 4-30mm thick plates marked FB14A, FB10A and FB28A for floor beams were in progress and drilling of 55-31mm diameter bolt holes on 70mm thick connection plates marked P709 and P637 was also in progress. No cutting and rolling of plates for Caltrans job noted.

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Bay 3: OBG side/bottom/edge panel

This QA Inspector also randomly observed ZPMC welder operator Wei Dashuai ID Number 051246, and ID #048810 utilizing the FCAW Process in the 2F (Horizontal Fillet) Position with gantry(#1) mounted welding apparatus and ZPMC WPS WPS-B-T-2132-3, to weld 2-open rib stiffener to side plate EP092-001-weld joints 001/002 and EP063-001-001/002 respectively. The QA Inspector randomly observed ZPMC CWI Wu Ming Cai monitoring weld parameters. Tack/fit-up of 5-open rib stiffeners to side panel SP434-001-001~008 using THJ506 was in progress.

Bay 4: Tower Diaphragm

This QA observed ZPMC/NDE personnel perform Magnetic Particle Testing(MT) on two 6-WT rib stiffener to bottom panels BP067-001-007~018, BP067-001-043~054 and BP122-001-007~018 for green tagging. This QA also perform 10% MT on same mentioned panels.

The QA Inspector randomly observed ZPMC welder ID #046830 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the fill pass on 75mm thick tower diaphragm plate splice butt joint NSD1-SA104A/B-3A/4A. The QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring weld parameters.

This QA Inspector randomly observed ZPMC welder ID number 054460 and ID #058174 utilizing the FCAW Process in the 3G (Vertical Groove) Position with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic with ZPMC WPS WPS-B-T-2233-B-U3-F, to weld fill pass on groove (bent heavy plate) splice butt joint on Tower Diaphragm Flange Sub-Assembly, NSD1-SA242-9B and 7A and 13A. The QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring weld parameters.

Bay 7: OBG - Floor Beam Sub Assembly

The QA Inspector randomly observed ZPMC welder Duan Xin Zhi ID Number 050502 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the fill pass on plate splice butt joint of longitudinal diaphragm sub-assembly LD026-001-001. QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

FCAW(2F) fillet welding on stiffener and flange to web plate FB018-004 weld joints 046/047 and FB027-003-113 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H following WPS-B-T-2132-3 this QA observed. ZPMC welder Liu Kaige ID #044830 and ID #044774 and ID #044815 were seen performing the task. Tack/fit-up of flange to web plate of floor beam FB023-003-093 using TL508 electrode was also noted.

Bay 8: Tower Diaphragm

The QA Inspector randomly observed ZPMC welder Xu Pei Pei ID Number 050323, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the CJP fill pass on 75mm thick plate splice butt joint of tower diaphragm NSD1-SA244A/B-1A. QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

This QA also observed ID #062708 and ID #045175 FCAW(1G) CJP welding fill pass on flange to web plate

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corner joint FB037-001-126 using a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic and following WPS-B-T-2231-Tc-U4b-F. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring preheat and weld parameters.

FCAW(2F) fillet welding on flange to web plate FB035-001-092 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H following WPS-B-T-2132-3 this QA observed. ZPMC welder ID # 044203 was seen performing the task. Tack/fit-up of various 12mm plate splice butt joint of floor beam FB23A and FB23XAB using TL508 electrode was observed.

Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito
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Quality Assurance Inspector

Reviewed By:	Cuellar, Robert
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QA Reviewer
